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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,601	10/14/2003	Frederic Guerin	PO7959/PO-11114	4241
34947	7590	02/09/2005		
EXAMINER				
RONESI, VICKEY M				
ART UNIT		PAPER NUMBER		
1714				

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/684,601	GUERIN ET AL.	
	Examiner Vickey Ronesi	<b>Art Unit</b> 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-7 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-7 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
     Paper No(s)/Mail Date 10/14/03
- 4)  Interview Summary (PTO-413)  
     Paper No(s)/Mail Date. \_\_\_\_\_.  
 5)  Notice of Informal Patent Application (PTO-152)  
 6)  Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 2-4 are objected to because the term “polymer composite” on line 1 of each claim has antecedent basis in claim 1 and should therefore read as “The polymer composite.”

Claim 5 is objected to because the term “polymer composite” on line 1 of the claim has antecedent basis in claim 1 and should therefore read as “the polymer composite.”

Claim 7 is objected to because the word “process” on line 1 of the claim has antecedent basis in claim 6 and should therefore read as “The process.”

Claim 7 is objected to because there should be an indefinite article before each shaped article, i.e., the claim should read as “the shaped article is a seal, a hose, a bearing pad, a stator, a well head seal, a valve plate, a cable sheathing, a wheel roller, a belt, in place gaskets, or a pipe seal.”

Appropriate correction is required.

2. Claims 2 and 3 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claim(s) in independent form. The terms “below 45” and “below 40” in line 2 of each claim is broader than the range recited in claim 1, i.e., 50-30.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 3 recite the limitation "the raw polymer Mooney viscosity" in line 1 of each claim. There is insufficient antecedent basis for this limitation in the claims. Claim 1 provides antecedent basis for "Mooney viscosity" on line 2 of the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Aonuma et al (US 5,432,226).

Aonuma et al discloses a rubber formulation that is injected molded (col. 8, line 20) to form articles such as those disclosed on col. 8, lines 48-60 comprising a hydrogenated nitrile rubber having a Mooney viscosity of up to 70; filler; and a peroxide crosslinking agent (col. 16, line 54 to col. 17, line 14). Note col. 9, lines 3, 28, 35, and 47 where hydrogenated nitrile rubbers having Mooney viscosities of 45, 35, 38, 36, respectively, at 100°C are exemplified.

In light of the above, it is clear that Aonuma et al anticipates the present invention.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujii et al (WO 97/36956).

It is noted that the international Patent Application WO publication is being utilized for date purposes. However, since WO 97/36956 is in Japanese, in the discussion below, the US equivalent for WO 97/36956, namely US 6,489,385, is referred to in the body of the rejection below. All column and line citations are to the US equivalent.

Fujii et al discloses a composition comprising a nitrile group-containing nitrile rubber (col. 2, line 35 to col. 3, line 10) having a Mooney viscosity ranging from 5 to 135, preferably from 20 to 90 (col. 4, line 62), and various other components such as a vulcanizing agents (col. 6, line 61 to col. 7, line 37), fillers (col. 6, lines 52-58), and fibers (col. 11, lines 34-54). Note examples 2, 3, and 4 in Table 1 (col. 16) which exhibit Mooney viscosities of 35, 38, and 30, respectively and examples 5 and 8 in Table 2 (col. 17) which exhibit Mooney viscosities of 41 and 47, respectively. The composition is combined to form composites (col. 29, lines 34-36).

In light of the above, it is clear that Fujii et al anticipates the presently cited claims.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Obrecht et al (US 5,395,891).

Obrecht et al discloses vulcanizates which are mixtures comprising a rubber such as nitrile rubber or hydrogenated nitrile rubber (col. 2, line 52) having a Mooney viscosity (ML

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1+4) at 100°C ranging from 25-80; fillers (col. 3, lines 44-53); and crosslinking systems such as sulfur and peroxide systems (col. 4, lines 9-16).

In light of the above, it is clear that Obrecht et al anticipates the presently cited claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujii et al (WO 97/36956) in view of Rau et al (6,187,867).

The discussion with respect to Fujii et al in paragraph 5 above is incorporated here by reference.

Fujii et al does not disclose that an injection molding process is utilized, nevertheless, it discloses that the composition is useful in making belts such as timing belts (col. 11, lines 52-53; col. 29, lines 44-46).

Rau et al discloses a rubber composition comprising nitrile rubber and teaches that automobile belts, in particular timing belts, are conventionally made by injection molding (col. 4, lines 39-42)

Given that Fujii et al discloses that its composition is suitable for articles such as timing belts and given the teachings by Graefe regarding the conventional means of making timing

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belts, it would have been obvious to one of ordinary skill in the art to injection mold Fujii et al's composition Fujii's to produce a timing belt and thereby arrive at the presently cited claims.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

8       Claim 1, 6, and 7 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 12, 16, and 17 of copending Application No. 10/728,029 (published as US PGPub 2004/0132891). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claims 12, 16, and 17 of US Appl. '029 are identical to the presently cited claims.

9.       Claims 1, 6, and 7 are directed to the same invention as that of claims 12, 16, and 17 of commonly assigned copending Application No. 10/728,029. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more

than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 2-5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13 and 14 of copending Application No. 10/728,029 (published as US PGPub 2004/0132891). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons given below.

The discussion with respect to US Appl. '029 in paragraph 8 above is incorporated here by reference.

US Appl. '029 discloses a composite and a process for the manufacture of a shaped article comprising a nitrile rubber having a Mooney viscosity ranging from 30-50, which overlap the presently claimed ranges, and a peroxide curing system.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

11. Claims 2-5 are directed to an invention not patentably distinct from claims 13 and 14 of commonly assigned copending Application No. 10/728,029. Specifically, see the discussion set forth in paragraph 10 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302).

Commonly assigned copending Application No. 10/728,029, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

12. Claims 1-7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of copending Application No. 10/684,867 (published as US PGPub 2004/0113320). Although the conflicting

claims are not identical, they are not patentably distinct from each other because of the reasons given below.

US Appl. '867 discloses a composite and a process for the manufacture of a shaped article wherein the Mooney viscosity is less than 30. Although the Mooney viscosities of US Appl. '601 do not overlap the presently claimed range of 30-50, it is the examiner's position that the values are close enough that one of ordinary skill in the art would have expected the same properties. Case law holds that a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). Should applicant argue criticality of Mooney viscosity greater than 30, it will be noted that applicants' data only compares Mooney viscosities of greater than 50 to the presently claimed Mooney viscosities (see applicants' Table 1). Such comparative data has little to no probative value.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

13. Claims 1-7 are directed to an invention not patentably distinct from claims 1-7 of commonly assigned Application No.10/684,601. Specifically, see the discussion set forth in paragraph 12 above.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned Application No.10/684,601, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as

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prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

*Correspondence*

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

2/3/2005

vr



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